

Claims

We claim:

1 1. A composition comprising a tissue glue and, retained in the glue, in particulate
2 form, a radiotherapeutic agent or agent convertible to a radiotherapeutic, whose
3 therapeutic effect is mediated locally, on degradation of the glue.

1 2. The composition according to claim 1, which additionally comprises a material
2 that accelerates degradation of the glue.

1 3. The composition according to claim 2, wherein the glue is proteinaceous and
2 said material is proteolytic.

1 4. The composition according to claim 1, which additionally comprises a material
2 that inhibits degradation of the glue.

1 5. The composition according to claim 1, wherein the agent is in the form of a
2 chelate holding a radioactive atom.

1 6. The composition according to claim 1, wherein the agent is a ferrite.

1 7. The composition according to claim 1, which additionally comprises a
2 radiation sensitizer capable of leaching out and augmenting the local radiotherapeutic
3 effect.

1 8. The composition according to claim 1, which additionally comprises a growth
2 factor or other substance that mitigates the anti-wound-healing effect of radiation.

1 9. The composition according to claim 1, wherein the agent comprises a zinc-
2 substituted yttrium ferrite, or a ⁵⁶Fe-enriched ferrite.

1 10. The composition according to claim 1, wherein the agent comprises ¹⁰³Pd or
2 ⁹⁰Y.

1 11. A method for the radiotherapy of a tumor, which comprises applying to the
2 tumor an effective amount of a composition as defined in claim 1.

1 12. The method of claim 11, wherein the radiotherapy of a tumor comprises
2 brachytherapy.

1 13. A composition comprising an antibody, a particulate radionuclide and a
2 fibrinogen tissue glue.

1 14. The composition according to claim 13, wherein the particulate radionuclide
2 is a β -emitting ferrite.

1 15. The composition according to claim 13, wherein the particulate radionuclide
2 is coupled to the antibody.

1 16. The composition according to claim 15, wherein the antibody is a nerve
2 adhesion molecule.

1 17. A method for making a radiotherapeutic composition comprising an antibody,
2 a particulate radionuclide and a fibrinogen tissue glue which comprises:

3 (a) preparing a particulate radionuclide; and

4 (b) mixing the particulate radionuclide with the fibrinogen tissue glue and the
5 antibody.

1 18. A method of using a radiotherapeutic composition comprising an antibody, a
2 particulate radionuclide and a fibrinogen tissue glue which comprises applying the
3 composition directly to tumor tissue.

1 19. A method of radiation synovectomy which comprises administering an
2 effective amount of a composition of claim 1 to a patient to be treated.

1 20. A method of radiotherapy in the treatment of arterio-venous malformations in
2 a blood vessel which comprises applying to the blood vessel a composition as defined in
3 claim 1.